

AMENDMENT TO THE CLAIMS

CLAIMS

1-17 (Canceled)

18. (New) A process for the direct, economic preparation of ditertiary butyl peroxide comprising,

- a. reacting tertiary butyl hydroperoxide with tertiary butyl alcohol,
- b. without substantial water removal,
- c. at temperatures of 50 to 120 C,
- d. optionally with isobutylene,
- e. in the presence of an effective amount of an acidic, at least 10% cross-linked ion exchange resin catalyst, and
- f. removing the product effluent from catalyst for use.

19. (New) The process of claim 18 wherein the said resin is at least 20% cross-linked polystyrene-divinyl benzene acidic resin.

20. (New) A process for the direct, economic preparation of ditertiary butyl peroxide comprising,

- a. reacting an isobutane oxidate containing tertiary butyl hydroperoxide and tertiary butyl alcohol,
- b. without substantial water removal,
- c. at temperatures of 50 to 120 C,
- d. optionally with added tertiary butanol and/or isobutylene,
- e. in the presence of an effective amount of an acidic, at least 10% cross-linked ion exchange resin catalyst, and
- f. removing the product effluent from catalyst for use.

21. (New) The process of claim 20 wherein the said resin is at least 20% cross-linked polystyrene-divinyl benzene acidic resin.

22. (New) A process for the direct, economic preparation of ditertiary butyl peroxide which comprises,

- a. reacting an isobutane stripped isobutane oxidate containing 30 to 75 weight % tertiary butyl hydroperoxide and tertiary butanol,
- b. without substantial water removal,
- c. at temperatures of 50 to 120 C,
- d. optionally with added tertiary butanol and/or isobutylene,
- e. in the presence of an effective amount of an acidic, at least 10% cross-linked ion exchange resin catalyst, and
- f. removing the product effluent from catalyst for use.

23. (New) The process of claim 22 wherein the said resin is at least 20% cross-linked polystyrene-divinyl benzene acidic resin.

Respectfully submitted,

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